

# Veronica Cateté

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## Specialty Courses & Skills

Intelligent Game Based Learning Environments, Evaluation of Game Design Techniques, Mobile App Development  
Research Design & Quantitative Methods, Adv. Educational Psychology, Educational Data Mining  
Software Engineering, Data Structures & Algorithms, Artificial Intelligence II, Graph Theory  
Java, JavaScript, C#, C++, ActionScript, C|HTML5, CSS, PHP, SQL|Unity3D, XNA, Eclipse, Visual Studio

## Project Highlights

Working with UC Berkley to develop an AP CS Principles course, the Beauty & Joy of Computing. Organized PD for 100+ teachers.  
Partnered with NCSU History department to design 3 Lebanese Migration to NC iPad and Kinect games for NC Museum of History  
Design & developed Unity3D forensics game for Shaw University to promote STEM interest in incoming freshman  
Volunteer in High Hopes Haiti to mentor young women in computing, taught Scratch and OLPC use, and set up donated computers  
Lead programmer in developing a web based Scavenger Hunt Detective game, for Discovery Place, a kid's museum in Charlotte, NC

## Graduate Research Experience

### **Mothering Across Continents, Kigali, Rwanda**

Summer 2016

#### *Lead Researcher*

- Primary responsibilities include developing scalability partnerships with Rwanda Ministry of Education and Ministry of Youth ICT and conduct follow-ups with STEM-ICT Academy
- Curated content and trained leaders for Computer Science portion of week long 'Pivot Academy', a STEM focused program for constructive learning (150 female participants)

### **Microsoft Research, Redmond, WA**

Summer 2014, 2015

#### *Research Intern*

- Field review of reliable scientific literature on Minecraft Education delivered as a whitepaper to the managers of the Minecraft acquisition team; Provided guidance on existing research in ME, possible directions for future support and extensions. Results contributed to FAQ on Minecraft Education's main webpage.
- Using project Athena, developed two online resources for global distribution of CS Education: 20+ module game-centric AP CS Principles course and a 6 module science-themed middle school computing toolkit

### **NCSU Center for Educational Informatics, Raleigh, NC**

2012 – Present

#### *Research Assistant*

- Research on training novice teachers to identify computational thinking in student code
- Assist in development and refinement of AP CS Principles Beauty & Joy of Computing (BJC) & run BJC professional development in conjunction with UC Berkeley
- Lead developer, coordinator of monthly middle school outreach program (starting 2009)
- Research variables affecting transition from middle school outreach to high school formal courses

### **UNCC Games + Learning Lab, Charlotte, NC**

2011 – 2012

#### *Research Assistant*

- Rapid prototyping of games with a purpose: Snag'em (snagemgame.com) and BOTS (bots.game2learn.com)
- Snag'em (php, mysql, js): Developed badge system, upgraded social network visualization, missions, and database structure
- BOTS (Unity3D, js): Developed GUI-based programming game featuring 3D world puzzles

## Education

NC State University [GPA 3.75]

2012 – Present,

Raleigh, NC

2007 – 2010

- Ph.D. Computer Science – *Game-Based Learning & Curriculum Development & Evaluation*
- B.S. Computer Science – Magna Cum Laude - Minor: *Science, Technology, & Society*

UNC Charlotte [GPA 3.64]

2011 – 2012

Charlotte, NC

- M.S. Computer Science – *Intelligent and Interactive Systems & Mobile Game Development*

## Selected Publications

Price, T., Liu, Z., **Catete, V.** and Barnes, T. “Factors Influencing Students’ Help-Seeking Behavior while Programming with Human and Computer Tutors.” *International Computing Education Research (ICER) Conference*. 2017. 27% acceptance rate; 29/108 full papers

**(Best Paper Nominee) Cateté, V.,** and Barnes, T. “Application of the Delphi Method in Computer Science Principles Rubric Creation.” *International Conference on Innovation and Technology in Computer Science Education (ITiCSE)*. 2017. 32% acceptance rate; 56/175 full papers

**(Best Paper Nominee) Cateté, V.,** and Barnes, T. “Developing a Rubric for a Creative CS Principles lab.” *International Conference on Innovation and Technology in Computer Science Education (ITiCSE)*. 2016. 38% acceptance rate; 51/134 full papers

Price, T., **Cateté, V.,** Albert, J., and Barnes, T. “Determining the Impact of Teacher Professional Development on Perceived Ability to Teach a Computer Science Principles Course.” *International Computing Education Research (ICER) Conference*. 2015. 26% acceptance rate; 25/96 full papers

Hicks, A., **Cateté, V.,** Zhi, R., Dong, Y., and Barnes, T. “BOTS: Selecting Next-Steps from Player Traces in a Puzzle Game.” *Workshop on Graph-based Edu. Data Mining at the International Conference on Educational Data Mining, (EDM)*. 2015.

**Cateté, V.** “CS Outreach to High School Enrollment: Bridging the Gap.” *International Computing Education Research (ICER) Conference*. 2014. 25% acceptance rate; 17/69 full papers

**(Best Paper Nominee) Hicks, A., Cateté, V.,** and Barnes, T. “Part of the Game: Changing Level Creation To Identify and Filter Low Quality User-Generated Levels.” *International Conference on the Foundations of Digital Games (FDG)*. 2014. 44% acceptance rate; 38/86 full papers

**Cateté, V.,** Wassell, K., and Barnes, T. “Use and Development of Entertainment Technologies in After School STEM Program.” *ACM Special Interest Group on Computer Science Education (SIGCSE)*. 2014. 39% acceptance rate; 108/274 full papers

## Research Grants & Awards

National Science Foundation Graduate Research Fellowship	\$132,000
Microsoft Research Graduate Women’s Scholarship	\$17,000
NCSU Research Assistantships	\$81,000
NCSU Women in Computer Science Scholarships	\$10,000
STARS Alliance Travel Grants	\$5,000
2016 Deborah S. Moore Outstanding Student Volunteer Award	
2017 Equity for Women Award Presented by the Council on the Status of Women	

## Student Involvement

Graduate Student Government, Senator, Vice President	2011 – 2016
SPARCS Middle School Outreach, Regional Coordinator	2011 – Present
ACM, Upsilon Pi Epsilon & WiCS	2010 – Present
Students & Technology in Academia, Research, & Service (STARS Corps), Member, Team Lead (2011 – 2016), President (2012 – 2015)	2009 – Present
American Legions Auxiliary, Relay4Life (Childhood Cancer Awareness)	2006 – Present

## Side Projects

International Women’s Hack-a-thon – NCSU Organizer	2014, 2015
Global Game Jam – Orchestrated a 1st time location, collaborated with IGDA chapter to facilitate interaction between industry and students	2013
Global Game Jam – Bear Fight: Teddy Edition. Lead Programmer, team of six. Multiplayer fighter game for girls, teddy bears having a pillow fight.	2012
Global Game Jam – Baby Mammoths Journey to Mars, now available on XBLIG. Level Designer, team of four. Canabalt game. (XBox 360)	2011
Imagine Cup – Heroine, Honorable Mention. Lead programmer, team of 4. Made a 2D fighter, featuring iconic historical women like Joan of Arc.	2011